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(51) INT CL<sup>7</sup>

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(52) UK CL (Edition V)

A5R RCED R321 R323

(56) Documents Cited

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(58) Field of Search

UK-CL (Edition V) A5R

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Other: ONLINE: EPODOC, WPI, JAPIO

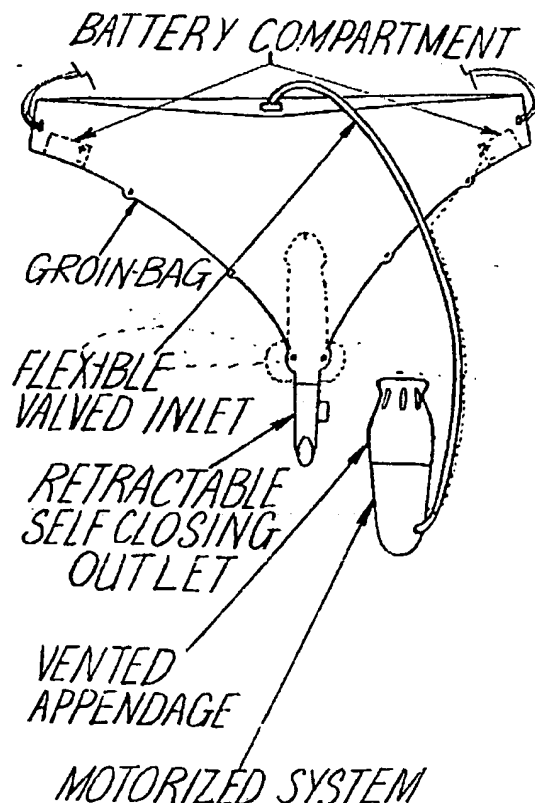
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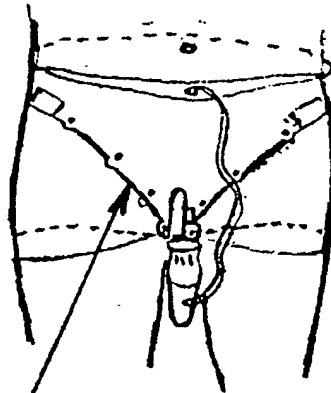
(54) Abstract Title

Urinal device with groin shaped collection bag

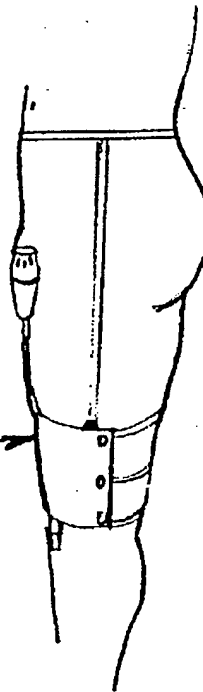
(57) A male urinal device which has a groin shaped urine collection bag, manufactured from impervious material which may be plastic. Preferably urine enters the groin bag through the upper edge, higher than the point of exit. A sheath appendage may draw urine from the body assisted by a battery operated pump. The groin bag may be reusable or disposable, and conveniently emptied via the fly of the trousers by a detachable, self closing outlet. A liquid detector comprising two or more perforated steel mesh plates, preferably stainless steel, may be provided with optional warning device. The urinal device may also be used as a gravity fed system with a conventional leg bag or freestanding container.



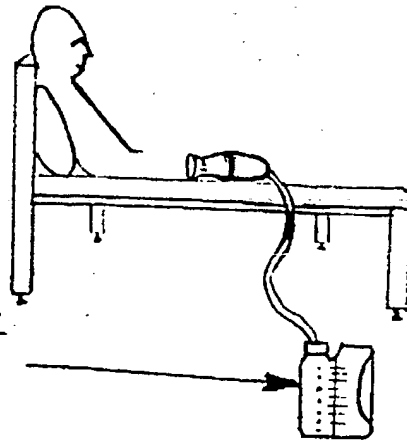
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GROIN BAG

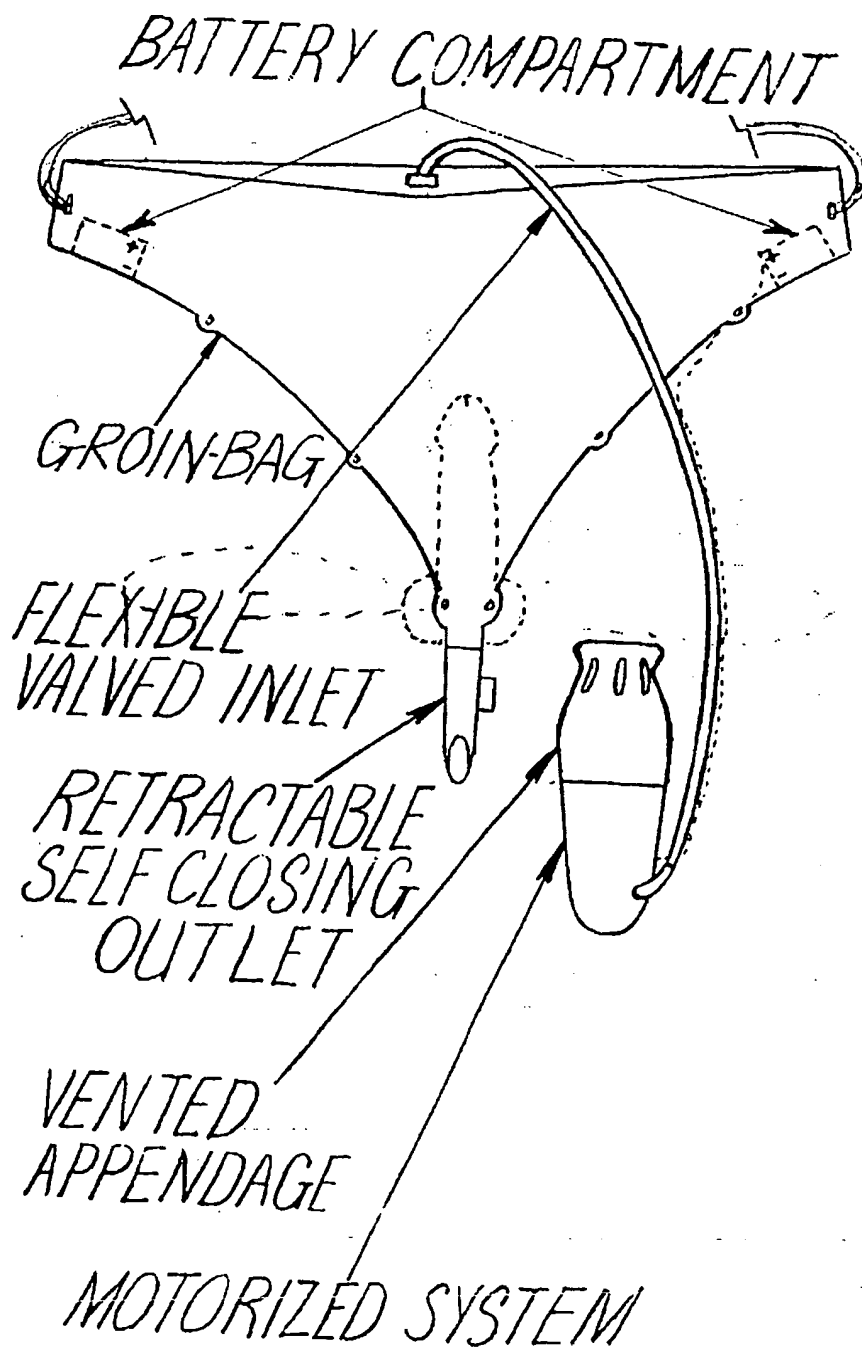


LEG BAG

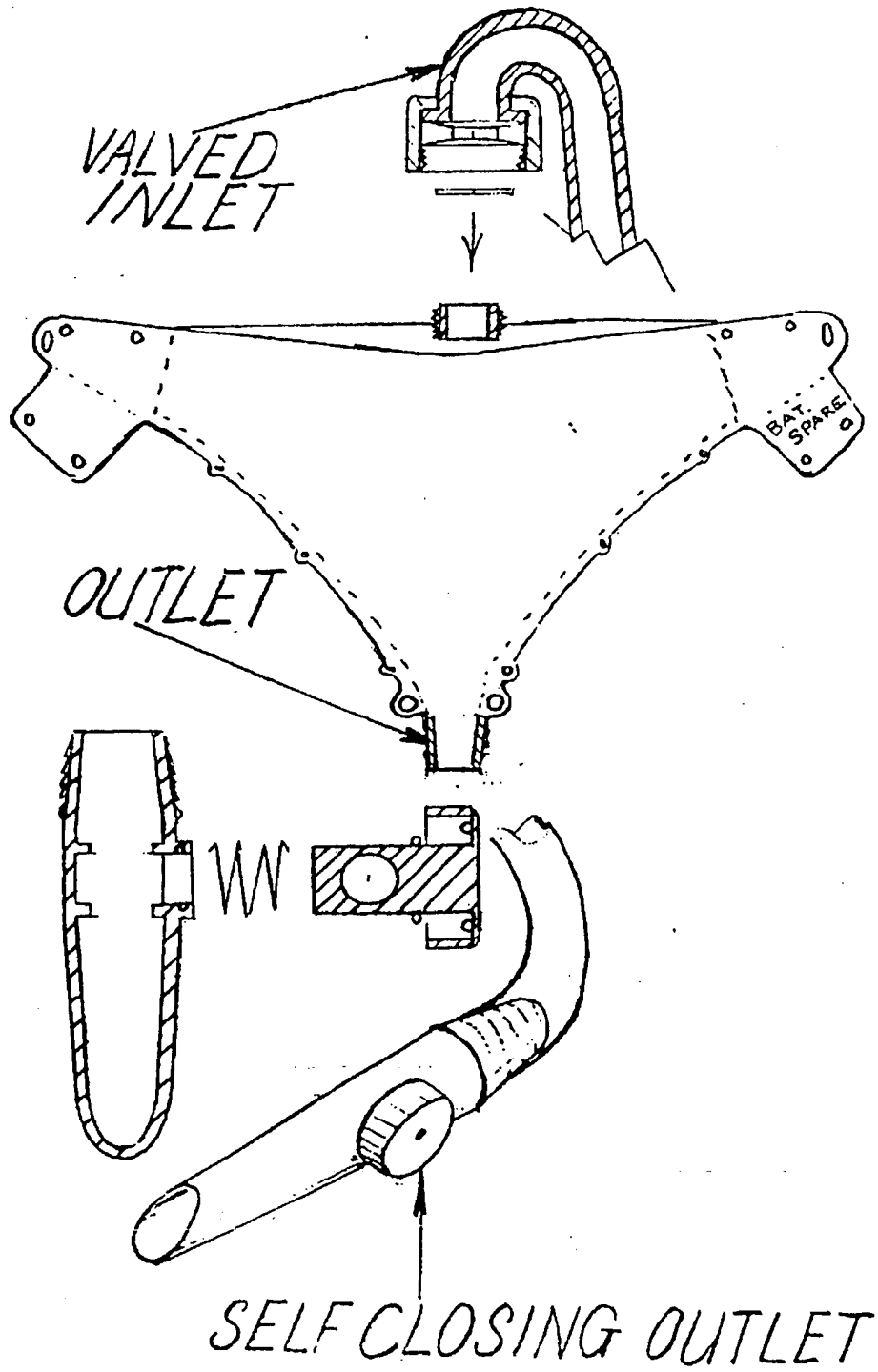


CALIBRATED  
FREE STANDING  
CONTAINER

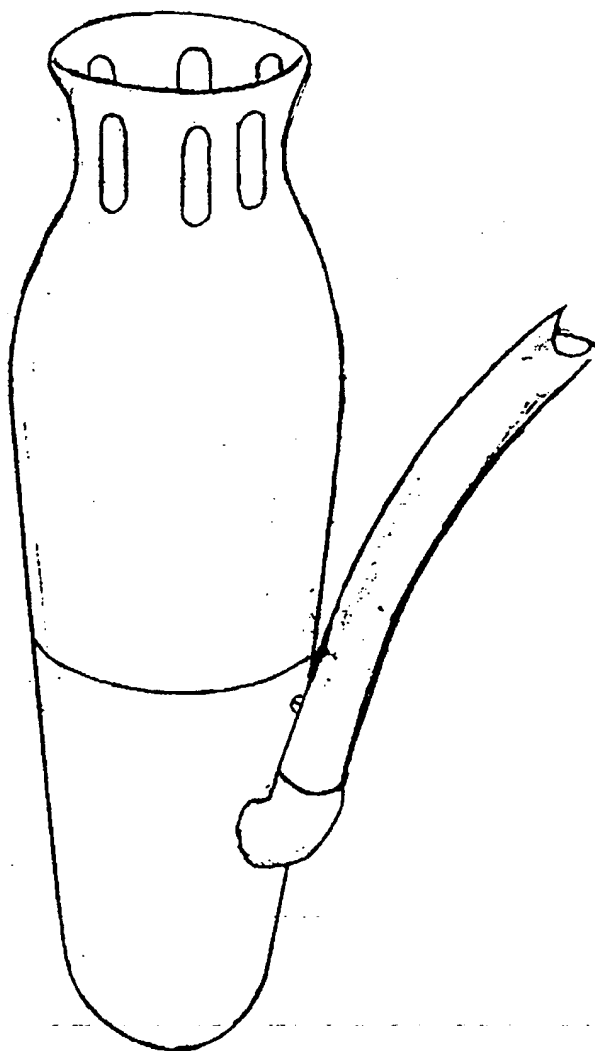
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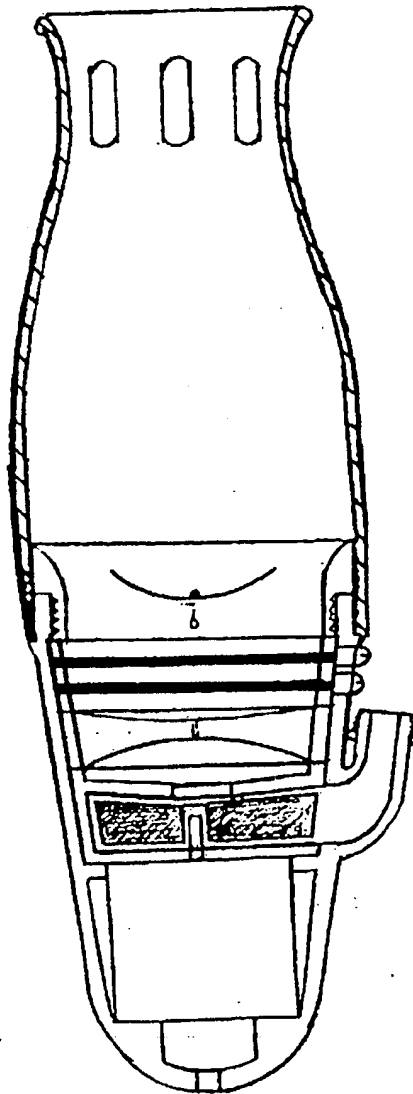
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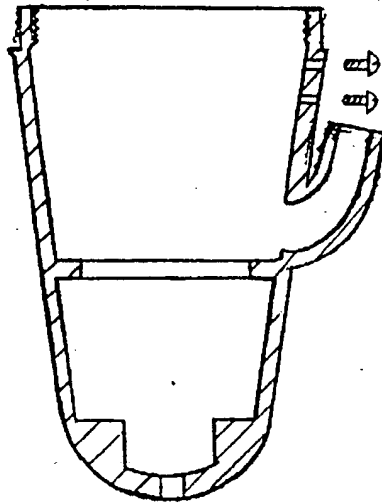
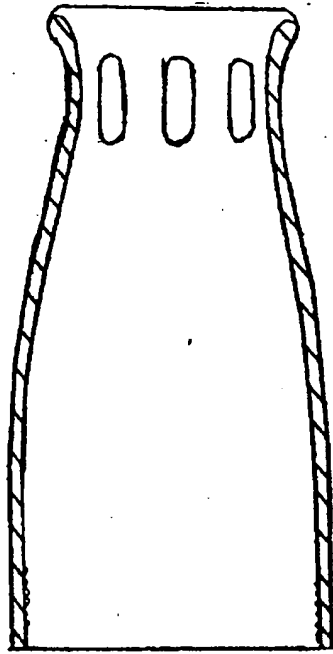
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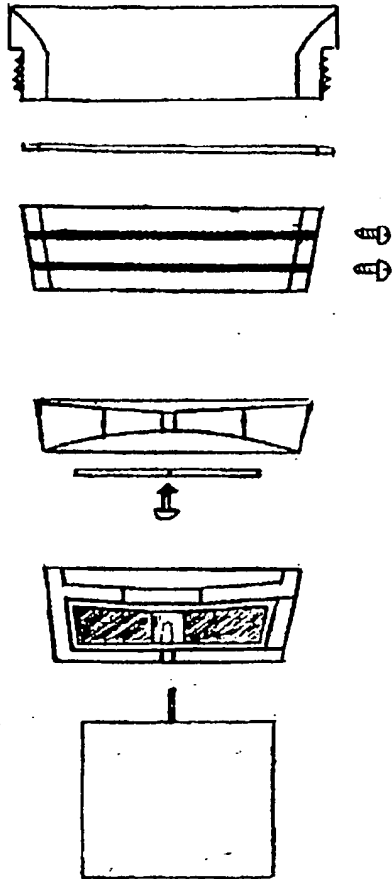
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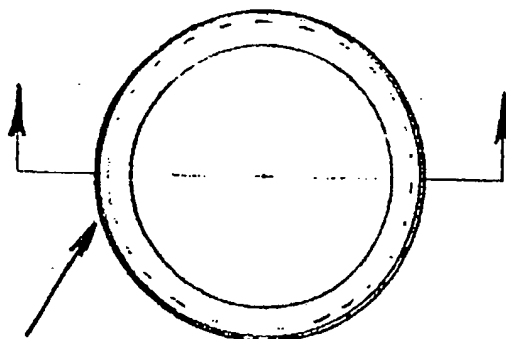


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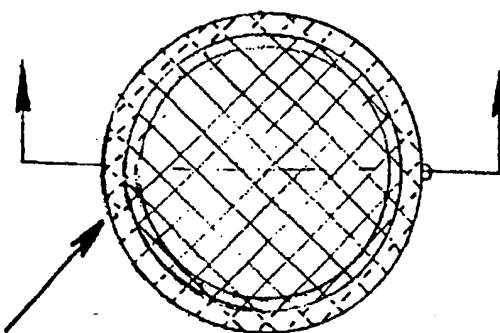
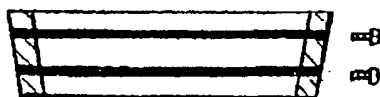




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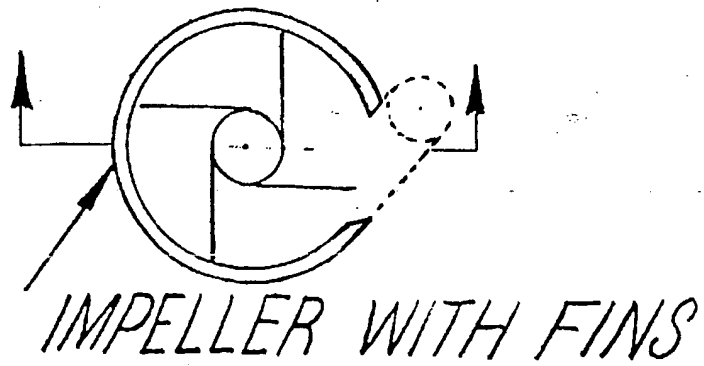
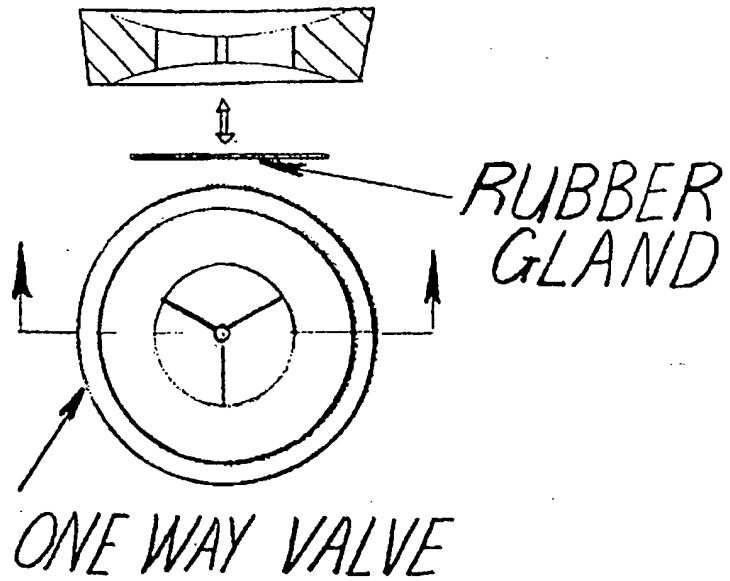


LOCKING DEVICE

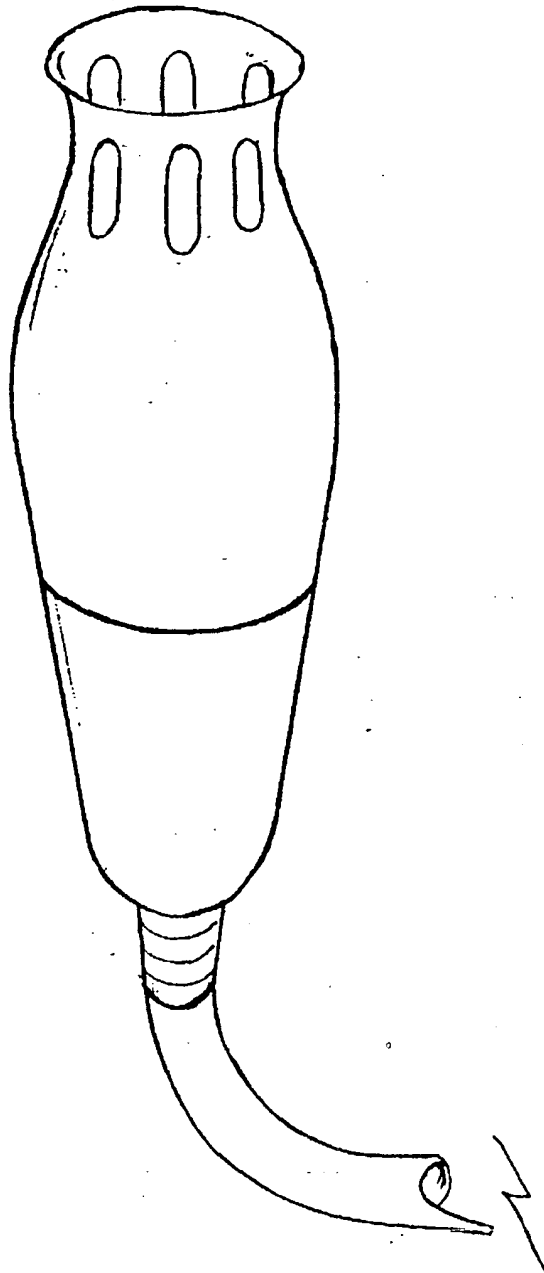


LICQUID DETECTOR  
360° SENSITVETY

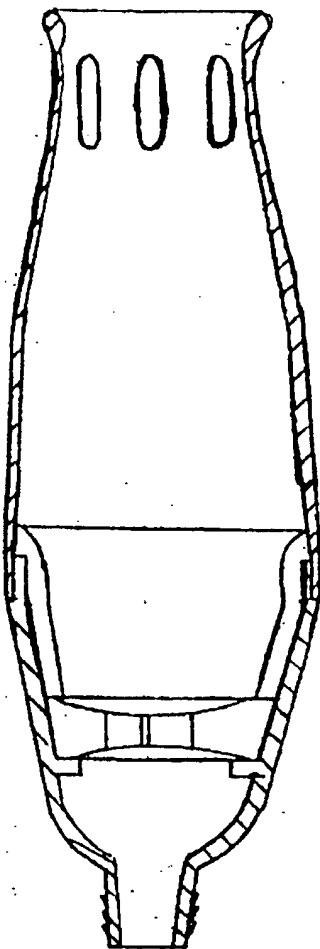
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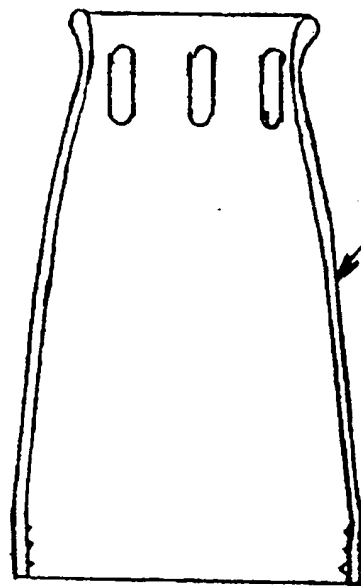
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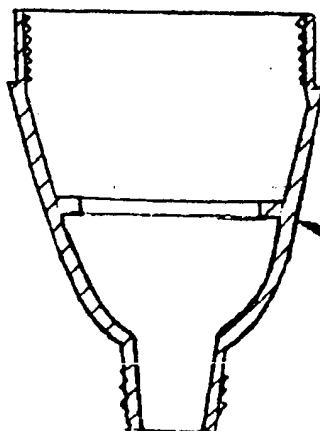
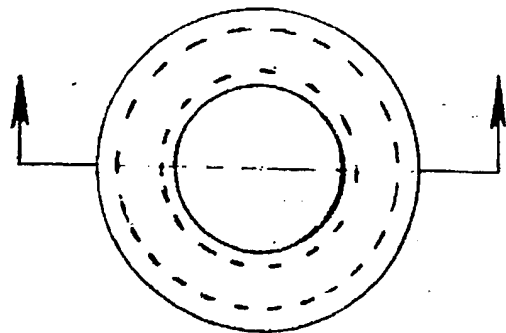
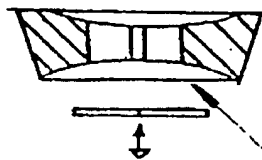
12/12



VENTED APPENDAGE



LOCKING DEVICE



ONE WAY VALVE

VALVE HOUSING

## URINAL

### Dismantable version of a urinal system

This invention relates to a personal urinal mainly – but not exclusively – for incontinent individuals.

Normally, urinal inconsistency is addressed by means of incontinent pads or catheters. Both of these have their drawbacks. Either the patient's skin remains in contact with the urine, in the case of the pad, or the insertion of the catheter requires training and can be uncomfortable and problematic i.e. cause infection if not handled hygienically.

An objective of this invention is to keep the urine away from the patient's skin and eliminate the discomfort of inserting the catheter into the neck of the bladder via the urethra. Three possible configurations of this system is shown on Page 1/12.

The flexible valve inlet conveying the urine from the housing to the 'Groin-Bag' can be disconnected from both ends and is shown on Page 2/12. Details of self-closing device and valve inlet for the 'Groin-Bag' is shown on Page 3/12.

Page 4/12 shows the motorised system with the vented appendage.

Page 5/12 shows a section through the motorised system on Page 4/12.

Page 6/12 shows the empty housing of the system and

Page 7/12 shows the contents of the housing.

Page 8/12 shows the sectional details of the locking device and the liquid detector switch.

Page 9/12 shows a section through the one-way valve and impeller housing with propeller/fins in position.

Page 10/12 shows a drawing of a valve gravity fed urinal system and a section through it is shown on Page 11/12 revealing the valve and locking device.

Page 12/12 shows the dismantled gravity fed urinal of Page 1-/12 together with sections through the one-way valve and locking device.

## CLAIMS

- 1) While it is recognised that there are other bags on the market for body waste, a 'Groin-Bag' of this nature is the only one which is specifically tailored for the groin region. Page 1/12. Preferably the 'Groin-Bag' is manufactured from plastic but any flexible or rigid impervious material may be used.
- 2) A 'Groin-Bag' claimed in Claim 1 is the only bag with battery compartments and an elasticated leg and waistband. Page 2/12.
- 3) A 'Groin-Bag' claimed in claim 2 is the only one which accepts body waste above the point of exit via a tube. Page 2/12.
- 4) Such a 'Groin-Bag' claimed in Claim 3 is also the only one which allows the user to conveniently discharge the waste via the fly-front of a trousers by means of a flexible detachable self closing outlet. Page 3/12.
- 5) A 'Groin-Bag' claimed in Claim 1 through 4 may be of a reusable or disposable type.
- 6) A 'Personal Urinal' is a system comprising a specifically designed 'Groin-Bag' claimed in Claim, Claim 2, Claim 3 Claim 4 and claim 5 together with a motorised system consisting of a specially designed 'automatic liquid detector', a non-return valve of type known and a motorised pump. Page 5/12.
- 7) A urinal claimed in claim 6 comprises an additional flexible expandable detachable, reusable and vented appendage into which a penis may be inserted. Page 4/12.
- 8) The specially designed liquid detector claimed in Claim 6 and illustrated on Page 8/12 consists of two or more 'perforated steel-mesh' plates preferably manufactured from stainless steel but other conducting materials may be used.
- 9) A urinal system claimed in Claim 6 and 7 may or may not include low voltage warning device or devices – an assembled version is illustrated on Page 4/12. Preferably the system is manufactured from plastic but any lightweight impervious material may be used.
- 10) The urinal system claimed in claim 1 through Claim 9 can be used as a gravity fed system shown on Page 10/12 and 11/12.





INVESTOR IN PEOPLE

Application No: GB 0215191.8  
Claims searched: 1 to 10

Examiner: Stephanie Parry  
Date of search: 20 January 2003

## Patents Act 1977 : Search Report under Section 17

### Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance	
X	1, 5	CA 2359091 A1	(CHARLES) Figs, page 2 last para to page 3 para 2
X	X: 1, 5 Y: 2, 3, 5	US 5346483	(THAXTON) Figs 1, 5 and 6, col 7 lines 5-9, 20-41
X	1 to 7, 9	WO 00/33773 A1	(MACKIE) Figs, page 3 line 1 to page 4 line 3, page 6 paras 2 and 3
X	1 to 3, 5 to 7, 9	EP 0610638 A1	(A.M.C) Figs, col 2 lines 19-22, col 3 lines 31-42, 48-50, col 3 line 56 to col 4 line 6, col 4 lines 22-26, col 4 line 56 to col 5 line 7, col 7 lines 1-11
Y	2, 3, 5	EP 0287441 A1	(NIGAY) Fig 6, WPI Abstract Accession No. 1988-294795/37
A	-	US 4820291	(NIPPON) Figs, col 2 lines 55-61, col 4 lines 10-17

### Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

### Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKCV:

A5R

Worldwide search of patent documents classified in the following areas of the IPC<sup>7</sup>:

A61F

The following online and other databases have been used in the preparation of this search report:

EPODOC, WPI, JAPIO